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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,079	07/13/2005	Hideki Sawada	10921.341USWO	2924
52835 7590 08/06/2008 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER				
LEE, CHEUKFAN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/542,079

Applicant(s)

SAWADA, HIDEKI

Examiner

Cheukfan Lee

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Claims 1-9 are pending. Claims 1 and 6 are independent.
2. The corrected drawing Figs. 10 and 11 are approved by the examiner.
3. Applicant's arguments filed April 29, 2008 have been fully considered but they are not persuasive.
4. Claims 1 and 6 each have been amended to include new limitations a) "a guide base mounted to the case and carrying a front roller and a rear roller", b) wherein the case is pivotable relative to the bracket about a pivotal axis", and c) "wherein an elastic member is provided between the case and the bracket at a position spaced from the pivotal axis intermediate the front and rear rollers for urging the case".

The limitation a) is also taught Applicant's admitted prior art (see prior art Fig. 9, the guide base carrying a front roller and a rear roller, positioned just above the case 120).

Adding the limitations b) and c) does not make the claim 1 invention patentably distinct over the image sensor head of Applicant's admitted prior art in view of Sheng (U.S. 5,801,851). Please see rejection below.

Claims 3-5 depend on claim 1, and claims 8 and 9 depend on claim 6. See rejections below.

With regard to Applicant's arguments with respect to Takahara (US 6,285,441) in the rejection of claims 2 and 7 (see page 7 of Applicant's remarks), Takahara was/is relied on for teaching two positioning means/positioners. The feature of preventing the case from moving in the primary scanning direction (N1) relative to the bracket (106) is taught by Applicant's admitted prior art (Fig. 9) as discussed below for claims 1 and 6. This feature meets the claimed "preventing the case from moving in the primary scanning direction relative to the bracket" of claims 1 and 6, to the extent of the claims. See rejections below.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Sheng (US 5,801,851). Sheng was applied in the rejection of claim 4 in the previous Office action mailed October 29, 2007.

Regarding claim 1, Applicant's prior art image sensor head (prior art Figs. 8 and 9) comprises a case (120) elongated in a primary scanning direction (N1) and mounted on a bracket (106) movable in a secondary scanning direction (N2), a guide base

Art Unit: 2625

mounted to the case (120) and carrying a front roller and a rear roller (see prior art Fig. 9, the guide base carrying a front roller and a rear roller, positioned just above the case 120), a light source (131) accommodated in the case (120), and light receiving elements (142s) accommodated in the case (120) for receiving light from a document being read, wherein the case (120) is provided with two positioners (one being the left engaging means 121 formed with the recess 171 as viewed in Fig. 9, and another being the right engaging means 121 without a recess) for preventing the case (120) from moving in the primary scanning direction (N1) (page 1, line 12 - page 3, line 12), wherein the case (120) is pivotable relative to the bracket (106) about a pivotal axis (the axis through 162a and 162a in Fig. 9).

Applicant's prior art image sensor head does not include an elastic member as claimed.

Sheng discloses an elastic member (spring 4) provided between a case (1 excluding the bottom piece thereof, which piece is an image sensor board and meets the claimed board of claims 3, 4 and 6 to be discussed) and a bracket (2) to urge the case (1) toward a glass window (5a) (Figs. 2-4, col. 2, lines 55-61). The spring (4) urges the case of the image sensor such that the image sensor is in close contact with one side of the glass window (5a).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the concept of Sheng to employ an elastic member between the board (124) and thus the case (120), and the bracket (106) of Applicant's prior art,

such that the elastic member contacts the board (124) to urge the case (120), so that the case (120) is in close contact with a side of a glass window as taught by Sheng.

As to the claimed position of the elastic member that is spaced from the above discussed pivotal axis (the axis through 162a and 162a in Applicant's prior art Fig. 9) intermediate the front and rear rollers (see the two rollers above one end of case 120 in Fig. 9), one of ordinary skill in the art would have realized the advantage of positioning the elastic member at such a position that it is spaced from the pivotal axis and intermediate the front and rear rollers, over positioning the elastic member right under the pivotal axis (the axis through 162a and 162a in Fig. 9). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the elastic member positioned as claimed to allow maximum efficiency of the elastic member in urging the case toward the glass window.

Regarding claim 3, Applicant's prior art sensor head further comprises an elongated circuit board (124 in Fig. 9) fixed to the case (120), and a connector (114) supported by the board (124) for external connection, wherein the light source (131) is mounted on an end of the board (124), the connector(114) being attached to another end of the board (124)(Fig. 9).

Regarding claim 4, see discussion for claim 1 with respect to the position of the elastic member between the board (124) and thus the case (120), and the bracket (106) of Applicant's admitted prior art.

Regarding claim 5, Applicant's prior art sensor head (Fig. 9) further comprises two cylindrical projections (121a) for preventing the case (120) from moving in the secondary scanning direction (N2) relative to the bracket (106), wherein each cylindrical projection (121a) is positioned adjacent to a corresponding one of the positioners (the left positioning means 121 formed with the recess 171 as viewed in Fig. 9, the right positioner 121 without a recess), and projects in the primary scanning direction (see Fig. 9).

Regarding claim 6, Applicant's prior art scanning (Figs. 8 and 9, page 1, line 12 – page 3, line 12) comprises a case (120) elongated in a primary scanning direction (N1), a bracket (106) that supports the case (120) and is movable in a secondary scanning direction (N2), a guide base mounted to the case (120) and carrying a front roller and a rear roller (see prior art Fig. 9, the guide base carrying a front roller and a rear roller, positioned just above the case 120), a light source (131) accommodated in the case (120), light receiving elements (142s) accommodated in the case (120) for receiving light from a document being read, a circuit board (124) fixed to the case (120) and supporting the light source (131) and the light receiving elements (142s), a connector

Art Unit: 2625

(1114) attached to the circuit board (124) for external connection, and a drive assembly (including timing belt 162) for reciprocating the bracket (106) in the secondary scanning direction (N2), wherein the case (120) is provided with two positioners (one being the left engaging means 121 formed with the recess 171 as viewed in Fig. 9, an another other being the right engaging means 121 without a recess) for preventing the case (120) from moving in the primary scanning direction (N10 relative to the bracket (106), the two positioners being spaced from each other in the primary scanning direction, and wherein the case (120) is pivotable relative to the bracket (106) about a pivotal axis (the axis through 162a and 162a in Fig. 9) (Figs. 8 and 9, page 1, line 12 - page 3, line 12).

Applicant's prior art image sensor head does not include an elastic member as claimed.

Sheng discloses an elastic member (spring 4) provided between a case (1 excluding the bottom piece thereof, which piece is a circuit board and meets the claimed circuit board) and a bracket (2) to urge the circuit board and thus the case (1) toward a glass window (5a) (Figs. 2-4, col. 2, lines 55-61). The spring (4) urges the case of the image sensor such that the image sensor is in close contact with one side of the glass window (5a).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the concept of Sheng to employ an elastic member between the circuit board (124) and the bracket (106) of Applicant's prior art, such that the elastic

member contacts the board (124) to urge the case (120), so that the case (120) is in close contact with a side of a glass window as taught by Sheng.

As to the claimed position of the elastic member that is spaced from the above discussed pivotal axis (the axis through 162a and 162a in Applicant's prior art Fig. 9) intermediate the front and rear rollers (see the two rollers above one end of case 120 in Fig. 9), one of ordinary skill in the art would have realized the advantage of positioning the elastic member at such a position that it is spaced from the pivotal axis and intermediate the front and rear rollers, over positioning the elastic member right under the pivotal axis (the axis through 162a and 162a in Fig. 9). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the elastic member positioned as claimed to maximize the efficiency of the elastic member in urging the case toward the glass window.

Regarding claim 8, the connector (114 in Fig. 9) of Applicant's prior art is arranged between the two positioners (the positioner formed with the recess 171 and the positioner without the recess) and located at a position closed to one of the positioner (the one 121 with the recess 171).

Regarding claim 9, Applicant's prior art scanner further comprises a flexible cable (113 in Fig. 8) connected to the connector (114).

7. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Sheng (US 5,801,851) as applied to claims 1 and 6 above, and further in view of Takahara (U.S. Patent No. 6,285,441), cited by Applicant in the IDS filed July 13, 2005 and applied in the previous Office action.

Regarding claim 2, in Applicant's prior art (Figs. 8 and 9), one positioner (the left positioner 121 formed with the recess 171) comprises a recess (171) into which a post (172) provided at the bracket 9106) is fitted. The other positioner (the right positioner 121) does not comprise a recess).

Takahara discloses an image sensor head comprising a case (2) mounted on a bracket (4), the case (2) provided with two substantially identical positioners (2a and 2b) near two respective ends of the case 92) (Fig. 4) to engage with two respective substantially identical ends of the bracket (4).

Takahara teaches employing two substantially identical positioners.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a positioner, substantially identical to the positioner (the left positioner 121 formed with the recess 171 of Applicant's Fig. 9 prior art) comprising a recess into which a post provided at the bracket (the right end of the bracket (106), as the right positioner (121) of Applicant's prior art, as taught by Takahara, in order to provide a balanced support between the bracket (106) and the case (120).

Claim 7 is rejected for the reason given for claim 2, for claiming the similar limitation.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sawada (U.S. Patent No. 6,184,513) "Image sensor chip and image sensor",
Figs. 1-5.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone

Art Unit: 2625

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheukfan Lee/
Primary Examiner, Art Unit 2625